In the Specification

Page 19, amend the paragraph beginning on line 8 and continuing onto page 20, line 3, as follows:

It is also well known that a circulant matrix is easily decomposed as follows:

$$\mathbf{C} = \mathbf{F}^{-1}\mathbf{D}\mathbf{F},$$

where F is the Fourier matrix of size (2Lx2L) and D is a diagonal matrix whose elements are the discrete Fourier transform of the first column of C. If we multiply Eq. (5) by F, we get the error signal in the frequency domain:

$$\begin{aligned}\underline{\mathbf{e}}(m) &= \underline{\mathbf{y}}(m) - \mathbf{G}\hat{\underline{\mathbf{y}}}'(m) \\ &= \underline{\mathbf{y}}(m) - \mathbf{G}\mathbf{D}(m)\hat{\underline{\mathbf{h}}},\end{aligned}$$

where

$$\underline{e}(m) = F\begin{bmatrix}0_{Lx1}\\ e(m)\end{bmatrix},$$

$$\underline{y}(m) = F\begin{bmatrix}0_{Lx1}\\ y(m)\end{bmatrix},$$

$$G = FWF^{-1},$$

$$\hat{\underline{y}}'(m) = F\hat{y}'(m),$$

$$\hat{\underline{h}} = F\begin{bmatrix}\hat{h}\\ 0_{Lx1}\end{bmatrix},$$